

CLAIM AMENDMENTS

Claim 14

Line 4, after “and is” insert –sequentially-.

Claim 23

Line 4, after “and is” insert - sequentially -.

Claim 28

Line 4, after “ nip-rollers” delete “,” and insert - before -.

Claim 29

Line 4, after “nip-rollers” delete “,” and insert - before -.

Claim 30

Line 4, after “nip-rollers” delete “,” and insert - before -.

Claim 31

Line 4, after “nip-rollers” delete “,” and insert - before -.

CLAIMS

Claim 1 (canceled)

Claim 2 (canceled)

Claim 3 (canceled)

Claim 4 (canceled)

Claim 5 (previously presented) :

Manufacturing method of electrodes for lithium based electrochemical devices and capacitors, as described in claim 28, in which said length of said grid is treated by a solvent resistant primer, prior to said dip-coating.

Claim 6 (previously presented) :

Manufacturing method of electrodes for lithium based electrochemical devices and capacitors, as described in claim 29, or 30, or 31, in which said length of said foil is treated by a solvent resistant primer, prior to said dip-coating.

Claim 7 (previously presented) :

Manufacturing method of electrodes for lithium based electrochemical devices and capacitors, as described in claim 28, or 29, or 30, or 31, in which said slurry includes at least two solvents of different evaporation rate, an active material, a carbon black and a polymer binder.

Claim 8 (previously presented) :

Manufacturing method of electrodes for lithium based electrochemical devices and capacitors, as described in claim 7, in which said solvents include acetone in the range of 42 to 54 weight % (percent) and N-methylpyrrolidinone in the range of 6 to 23 weight % (percent), said polymer binder is polyvinyldiene fluoride homopolymer in the range of 1 to 8 weight % (percent), said active material is in the range of 24 to 37 weight % (percent), and said carbon black is in the range of 1 to 8 weight % (percent).

Claim 9 (canceled) :

Claim 10 (previously presented) :

Manufacturing method of electrodes for lithium based electrochemical devices and capacitors, as described in claim 5 , in which said primer is a mixture of a carbon black and a solution of polyvinyldiene fluoride homopolymer in at least two solvents.

Claim 11 (previously presented) :

Manufacturing method of electrodes for lithium based electrochemical devices and capacitors, as described in claim 5 , in which said length has masked areas of intended terminal tabs by solvent resistant adhesive tapes, prior to said primer treatment, and said adhesive tapes are removable.

Claim 12 (previously presented) :

Manufacturing method of electrodes for lithium based electrochemical devices and capacitors, as described in claim 28, or 29, or 30, or 31, which additionally includes an electrode cleaning step of removing said coating in the intended terminal tabs area by buffing and vacuuming after said coating.

Claim 13 (previously presented) :

Manufacturing method of electrodes for lithium based electrochemical devices and capacitors, as described in claim 28, or 29, or 30, or 31,

which additionally includes an electrode cleaning step of removing said coating in the intended terminal tabs area by sand blasting and vacuuming after said coating.

Claim 14 (currently amended) :

Manufacturing method for lithium based electrochemical devices and capacitors, as described in claim 5, in which said primer is a mixture of a solution of lithium polysilicate in water and a carbon black, and a said length is dip-coated with said primer and is sequentially pulled over a roller horizontally after dipping while hot air is applied on said coating.

Claim 15 (canceled) :

Claim 16 (canceled) :

Claim 17 (canceled) :

Claim 18 (canceled) :

Claim 19 (canceled) :

Claim 20 (canceled) :

Claim 21 (previously presented) :

Manufacturing method of electrodes for lithium based electrochemical devices and capacitors, as described in claim 6, in which said primer is a mixture of a carbon black and a solution of polyvinylidene fluoride homopolymer in at least two solvents.

Claim 22 (previously presented) :

Manufacturing method of electrodes for lithium based electrochemical devices and capacitors, as described in claim 6, in which said length has masked areas of intended terminal tabs by solvent resistant adhesive tapes, prior to said primer treatment, and said adhesive tapes are removable.

Claim 23 (currently amended) :

Manufacturing method for lithium based electrochemical devices and capacitors, as described in claim 6, in which said primer is a mixture of a solution of lithium polysilicate in water and a carbon black, and a said length is dip-coated with said primer and is sequentially pulled over a roller horizontally after dipping while hot air is applied on said coating.

Claim 24 (canceled)

Claim 25 (canceled)

Claim 26 (canceled)

Claim 27 (canceled)

Claim 28 (currently amended) :

A manufacturing method of electrodes for lithium based electrochemical devices and capacitors, comprising the sequential steps of
providing a length of a metal grid,
feeding said length into a dip-tank at a controlled speed using driven nip-rollers before
dip-coating said length with an active material slurry,
pulling said length vertically upward through a solidification chamber,
solidifying said length in said chamber, and
winding said coated length onto a driven spool using an overdrive system with
a slip clutch.

Claim 29 (currently amended) :

A manufacturing method of electrodes for lithium based electrochemical devices and capacitors, comprising the sequential steps of
providing a length of an expanded metal foil,
feeding said length into a dip-tank at a controlled speed using driven nip-rollers before
dip-coating said length with an active material slurry,
pulling said length vertically upward through a solidification chamber,
solidifying said length in said chamber, and
winding said coated length onto a driven spool using an overdrive system with
a slip clutch.

Claim 30 (currently amended):

A manufacturing method of electrodes for lithium based electrochemical devices and capacitors, comprising the sequential steps of

providing a length of a perforated metal foil,

feeding said length into a dip-tank at a controlled speed using driven nip-rollers before dip-coating said length with an active material slurry,

pulling said length vertically upward through a solidification chamber,

solidifying said length in said chamber, and

winding said coated length onto a driven spool using an overdrive system with a slip clutch.

Claim 31 (currently amended):

A manufacturing method of electrodes for lithium based electrochemical devices and capacitors, comprising the sequential steps of

providing a length of a solid metal foil,

feeding said length into a dip-tank at a controlled speed using driven nip-rollers before dip-coating said length with an active material slurry,

pulling said length vertically upward through a solidification chamber,

solidifying said length in said chamber, and

winding said coated length onto a driven spool using an overdrive system with a slip clutch.